Volume 8 • Number 3 • 2005
VALUE IN HEALTH

Contributed Poster Presentations

Poster Session I

ASTHMA

PAS1

HEALTH CARE UTILIZATION, COST AND MEDICATION USE AMONG PEDIATRIC ASTHMA PATIENTS

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Asthma is the most prevalent chronic condition in children and is the number one cause of childhood hospitalizations. Revised guidelines published by the National Institutes of Health in 1997 characterize asthma as a chronic, inflammatory disease and propose specific recommendations for therapy with inhaled anti-inflammatory medications and stress the importance of ambulatory care to achieve adequate control. Given the high prevalence and current emphasis on monitoring asthma care by intervention, it is important to evaluate its economic impact on the health care system. **OBJECTIVE:** To estimate costs, health care utilization and characterize medication use of pediatric asthma patients in the post-guidelines era (1999–2001). **METHODS:** Data for this study were derived from the 1999–2001 household component of the Medical Expenditure Panel Survey. Pediatric asthma patients (age °Ü 17 yrs) were identified based on ICD-9-CM code of 493. Total costs were computed in terms of direct medical expenditures and indirect costs (based on school days or work days missed by caregiver). All costs were computed in terms of 2003 US dollars. **RESULTS:** Average annual cost per-child for 1999, 2000, and 2001 was $512.37, $572.27, and $662.31 respectively. In 1999, hospitalization was the major cost driver followed by office-based-visits and prescription medications. However, in 2000 and 2001, office-based-visits were the major cost drivers followed by prescription medications. Long-term control medications were prescribed more frequently than quick relief medications. Inhaled anti-inflammatory medications were prescribed less when compared to other medications in the same category. **CONCLUSIONS:** The study data show an increase in the use and cost of office-based-visits, medications and a decrease in hospitalization costs. These findings suggest that there have been improvements in care, consistent with the guidelines. Information from this study can help track changes in treatment of asthma and how the order of cost drivers has changed during this time.

PAS2

IMPACT OF ANTI-INFLAMMATORY MEDICATION ON ASTHMA COSTS IN A PEDIATRIC POPULATION

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OBJECTIVE: Anti-inflammatory medication may interrupt the progression to and severity of asthma for pediatrics who suffer from allergic rhinitis (AR) and/or atopic dermatitis (AD). The objective of this study was to evaluate the impact of: first generation anti-histamines (FGAH), second generation anti-histamines (SGAH), and intra-nasal steroids (INS) on annual asthma treatment costs in a cohort of AD/AR patients who develop asthma. **METHODS:** Data from GA Medicaid (1995 to 2001) and MarketScan (commercial population—1998 to 2001) were utilized. Newborn children free of any malignancies and diagnosed with AD/AR who later developed asthma and were eligible for at least 12 months after the first asthma diagnosis were included. All FGAH, SGAH and INS prescriptions from birth until an asthma diagnosis were recorded and total direct health care costs for subjects in the AD/AR cohort after the first asthma diagnosis were examined. Multivariate ordinary least squares regression using Huber-white heteroscedasticity consistent variance–covariance matrix after adjusting for sample selection was used to compare direct medical costs between groups exposed to FGAH, SGAH or INS and groups with no exposure. **RESULTS:** In total, 4277 in GA Medicaid and 353 asthma patients in the commercial were included, of which 2906 (68%) and 228 (64%) patients had at least one prescription for FGAH, SGAH, and INS. Any exposure to these anti-inflammatory agents were associated with a non-significant lower mean total cost of $66 PMPY (p-value = 0.50) and $497 PMPY (p-value = 0.45) in the GA Medicaid and commercial populations. Total medical costs (excluding prescriptions) and physician costs were $733 (p-value = 0.04) and $303 PMPY (p-value = 0.05) lower for the exposure groups in the commercial population. **CONCLUSION:** Exposure to anti-inflammatory agents reduced medical costs excluding prescription drugs in a commercial population; however, medical costs were not significantly lower in the Medicaid population.

PAS3

A COMPARISON OF ASTHMA MEDICATION USE IN PUBLICLY VERSUS PRIVATELY INSURED CHILDREN WITH ASTHMA

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OBJECTIVES: Asthma is the most common chronic disease in childhood. To ensure optimal control, children must have access to necessary medications, including inhaled corticosteroids for maintenance and bronchodilators as needed. The objective was to compare asthma medication use in publicly insured social assistance children to privately insured children with asthma. **METHODS:** Identical case definitions were used to created public (n = 12,767) and private (n = 17,046) cohorts of asthmatic Ontario children aged 2–14 years using 2002 aggregate private sector claims and 1998–2001 Ontario Drug Benefits database claims. Use of bronchodilators (BD), inhaled corticosteroids (ICS), leukotriene antagonists (LA) and oral corticosteroids (OS) were compared between cohorts. **RESULTS:** In contravention of guidelines, 12% of social assistance children received BD monotherapy compared to 1% of privately insured